UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/528,261	03/17/2000	Barry L. Hass	2204/A01	4222

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EXAMINER
WILSON, ROBERT W

ART UNIT	PAPER NUMBER
2661	8

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/528,261	HASS, BARRY L.
	Examiner	**Art Unit**
	Robert W Wilson	2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 February 2004*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-57* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-57* is/are rejected.

7)☒ Claim(s) *28-31, 33-37, 39-43, 46-49, & 53-57* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date *7*.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____ .

DETAILED ACTION

1.0 The application of Barry L. Hass for the application entitled "SYSTEM, DEVICE AND

METHOD FOR SUPPORTING A LABEL SWITCHED PATH ACROSS A NON-MPLS

COMPLIANT SEGEMENT" filed 3/17/2000 without foreign was examined. Claims 1-31, 33-

37, 39-43, 46-49, & 53-57 are pending.

Claim Objections

2.0 **Claims 28-31, 33-37, 39-43, 46-49, and 53-57** are objected to under 37 CFR 1.75 of the following formalities: The word "decapsulating" is utilized when the examiner believes that the applicant means "de-encapsulating" which is used for example in **Claims 28, 34, 40, 46, 53, and 57.** Appropriate correction is required.

Claim Rejections - 35 USC § 101

3.0 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 19-27 & 50-52 are rejected under 35 U.S.C. 101 because these claims refer to a "computer program packet" or "tunnel protocol" which are not a process, machine, manufacture, or composition of matter.

Referring to **Claim 19**, the words "computer program packet" are not a process, machine, manufacture, or composition of matter.

In Addition:

Claims 20-27 are rejected because they depend upon **Claim 19**.

Referring to **Claim 50**, the words "tunneling protocol" are not a process, machine, manufacture, or composition of matter.

In Addition:

Claims 51 and 52 are rejected because they depend upon **Claim 50**.

Claim Rejections - 35 USC § 112

4.0 The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19-27, 40-43, & 46-52 are rejected relative to 112/2nd paragraph because the metes and bound of the claim cannot be assessed.

Referring to **Claim 19**, What is meant by "computer program packet" on a "computer readable medium"?

In Addition:

Claims 20-27 are rejected because they depend upon claim 19.

Referring to **Claim 40**, What is meant by "computer program product" which comprises "a device". Is the invention a device or a computer program product on a computer readable medium ?

In Addition:

Claims 41-46 are rejected because they depend upon **Claim 40.**

Referring to **Claim 46**, What is meant by "communication system" ..."method"? Is the applicant claiming a communication system or a method?

In Addition:

Claims 47-52 are rejected because they depend upon **Claim 46.**

Claim Rejections - 35 USC § 103

4.0   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.0   **Claims 1-31, 33-37, 39-43, & 46-57** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Casey (U.S. Patent: 6,493,349 B1) in view of Mauger (U.S. Patent No.:

6,522,627).

Referring to **Claim 1**, Casey teaches: A method for establishing a label switched path for forwarding a packet with a label stack in the a communication network (Figures 2 & 3 show a method for establishing a tunnel or forwarding a packet through a VPN AREAs in a communication network where a VPN AREA can be MPLS or label switched), the communication network including a first label switched domain and a second label switched domain interconnected by a non-label switched domain (Figures 2 & 3 shows establishing a tunnel or forwarding a packet through a VPN Area in a communication network where a VPN area can be MPLS or label switched as well as Dedicated IP Net GRE tunnel area or non-label switched using VPN identifiers)

Establishing a tunnel across the non-label switched domain which connects the first label switched domain and the second label switched domain (Fig 2 shows establishing a tunnel across VPN AREAS. Figure 3 shows the VPN AREAS can be MPLS or label switched and Non-MPLS or non-label switched in any order. It would be obvious to one of ordinary skill in the art at the time of the invention that the VPN Areas of Casey can be sending a packet through a first label switched domain to a non-label switched domain to a label switched domain.);

Encapsulating the packet and label stack to form a tunnel packet (Fig 2 shows encapsulating a MPLS packet or IP packet to form a tunnel packet across a VPN AREA per Fig 3 or col. 3 lines 26-44 or col. 6 line 21-29)

forwarding the tunnel packet through the tunnel (Fig 2 shows forwarding a tunnel packet through the tunnel between VPN AREAs)

Casey does not expressly call for: encapsulating the packet and label stack but teaches encapsulating a MPLS packet per Fig 3 or col. 3 lines 26-44 or col. 6 line 21-29)

Mauger teaches: encapsulating the packet and label stack (col. 4 line 26-col. 5 line 10 or Fig 2)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the MPLS Label stack of Mauger to the MPLS packet of Casey in order to send packets from one MPLS Area to another MPLS Area as shown in Fig 1 & Fig 3 of Casey.

Referring to **Claim 10**, It is within the level of one skilled in the art to implement the functions taught by Casey and Mauger associated with Claim 1 in hardware or logic and software. Refer to Claim 1 rejection for details.

Referring to **Claim 18**, It is within the level of one skilled in the art to implement the functions taught by Casey and Mauger associated with Claim 1 in hardware or logic and software. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the software on a computer readable medium so that it can be executed in a processor. Refer to Claim 1 rejection for details.

In Addition Dependent Method, Device or Logic, and Computer Program Product on a Computer Readable Medium Claims taught by Casey:

Regarding **Claims 3, 11, & 20;** wherein the tunnel is an IP tunnel (col. 3 line 40 & col. 7 lines 13-21).

Regarding **Claims 4, 13, & 22;** wherein the tunnel is a Generic Routing Encapsulation (GRE) tunnel (col. 3 line 40 & col. 7 lines 13-21)

Regarding **Claims 6, 15, & 24;** wherein the first label switched domain is a Multiprotocol Label switched domain (Fig 2 teaches VPN AREAs and Fig 3 teaches that the AREAs can be MPLS or non-MPLS in any order).

Regarding **Claims 7, 16, & 25;** wherein the second label switched domain is a Multiprotocol Label Switching (MPLS) domain (Fig 2 teaches VPN AREAs and Fig 3 teaches that the AREAs can be MPLS or non-MPLS in any order).

Regarding **Claims 8, 17, & 26;** wherein the first label switched domain is a MPLS domain and the second label switched domain is a MPLS domain (Fig 2 teaches VPN AREAs and Fig 3 teaches that the AREAs can be MPLS or non-MPLS in any order).

In Addition Dependent Method, Device or Logic, and Computer Program Product on a Computer Readable Medium Claims taught by Mauger:

Regarding **Claims 2, 11, & 20;** wherein establishing a tunnel includes mapping a top label of the label stack to the tunnel (Label stack per col. 4 line 26-col. 5 line 10 or Fig 2   )

Regarding **Claims 5, 14, & 23;** wherein encapsulating the packet and label stack information includes providing a label switching protocol identifier such that the second label switched domain may identify the packet and retrieve the label stack (S bit or protocol identifier in the label stack per Fig 2 or col. 4 line 26-col. 5 line 10)

Regarding **Claims 9, 18, & 27;** wherein encapsulating the packet and label stack information includes providing an MPLS identifier in the tunnel packet such that the second label switched domain may identify the packet as an MPLS type packet and retrieve and label stack (S bit or protocol identifier in the label stack can be used to retrieve the label stack per Fig 2 or col. 4 line 26-col. 5 line 10)

Referring to **Claim 28,** Casey teaches: A method for establishing a label switched path for forwarding a packet with a label stack in a communication network (Figures 2 & 3 shows a method for establishing a tunnel or forwarding a packet through VPN AREAs in a communication network where a VPN AREA can be MPLS or label switched) the communication network including a first label switched domain and a second label switched domain interconnected by a non-label switched domain (Figures 2 & 3 shows establishing a tunnel or forwarding a packet through a VPN AREA in a communication network where a VPN area can be MPLS or label switched as well as Dedicated IP Network or GRE tunnel area or non-label switched using VPN identifiers or labels for a first and second domain)

establishing a tunnel across the non-label switched domain which connects the first label switched domain and the second label switched domain (Fig 2 shows establishing a tunnel between two areas or two domains. Fig 3 shows that they can be IP or non-label switched and MPLS or label switched)

receiving a tunnel packet from the tunnel, the tunnel packet comprises of a encapsulated packet and label stack (Fig 2 shows receiving an encapsulated packet which can be an MPL packet or IP packet per Fig 3), wherein the tunnel packet includes a label switching protocol identifier such that the second label switched domain may identify the packet as a label switched protocol packet (Fig 2 shows receiving an encapsulated packet which can be an MPL packet or IP packet per Fig 3 or col. 3 lines 26-44)

decapsulating the encapsulated packet and label stack (Fig 2 shows decapsulating an encapsulated packet which can be an MPLS packet or IP packet per Fig 3 or col. 3 lines 26-44)

forwarding the decapsulated packet and label stack across the second label switched domain (Fig 2 shows forwarding the decapsulated packet across a second VPN Area)

Casey does not expressly call for: encapsulated packet with a label stack and wherein the tunnel packet includes a label switching protocol identifier such that the second label switched domain may identify the packet as a label switched protocol packet and decapsulating the encapsulated protocol responsive to the label switching protocol identifier or retrieving the packet based upon the label stack but teaches that MPLS packets can be tunneled as well as encapsulated and decapsulated across areas per Fig 3 or col. 3 lines 26-44.

Mauger teaches: encapsulated packet with a label stack (Fig 2) and wherein the tunnel packet includes a label switching protocol identifier (S bit or Protocol identifier & label per Fig 3) such that the second label switched domain may identify the packet as a label switched protocol packet and can be used to receive and retrieve the label stack (S bit or Protocol identifier & label per Fig 3) and decapsulating the encapsulated protocol responsive to the label switching protocol identifier (S bit or Protocol identifier & label per Fig 3)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the MPLS Label stack with S Bit or Protocol Identifier of Mauger to the MPLS packet of Casey in order to send packets from one MPLS Area to another MPLS Area as shown in Fig 1 & Fig 3 of Casey.

Referring to **Claim 34,** Casey & Mauger taught all of the limitations of Claim 34 in claim 28 except for retrieving. The S bit of Mauger can be utilized in retrieving. It is within the level of one skilled in the art to implement the functions taught by Casey and Mauger associated with Claim 28 as well asimplement a device that retrieve a MPLS packet based upon the S bit in hardware or device or logic and software. Refer to Claim 28 rejection for details.

Referring to **Claim 40**, Casey and Mauger taught all of the limitations of Claim 40 in Claim 28 except for and retrieve the packet as well as the label stack. The S bit per Mauger can be utilized to retrieve the label stack. It is within the level of one skilled in the art to implement the functions taught by Casey and Mauger associated with Claim 28 in hardware or logic and software. It would have been obvious to one of ordinary skill in the art at the time of the invention to store the software on a computer readable medium so that it can be executed in a processor. Refer to Claim 28 rejection for details.

In Addition Dependent Method, Device or Logic, and Computer Program Product on a Computer Readable Medium Claims taught by Casey

Regarding **Claim 29**, wherein the first label switched domain is a MPLS domain and the second label switched domain is a MPLS domain (Fig 2 shows tunneling through VPN AREA or domains and Figure 3 shows that the VPN AREAs can be MPLS or Non-MPLS in any order). Regarding **Claim 30**, wherein the tunnel is an IP tunnel (col. 3 line 40 or col. 7 lines 13-21). Regarding **Claim 31**, wherein the tunnel is a Generic Routing Encapsulation (GRE) tunnel (col. 3 line 40 or col. 7 lines 13-21).

In Addition Dependent Method, Device or Logic, and Computer Program Product on a Computer Readable Medium Claims taught by Mauger

Regarding **Claim 32**, wherein the tunnel packet includes a label switching protocol identifier such that the second label switched domain may identify the packet and label stack (S bit or protocol identifier per Fig 2)
Regarding **Claim 33**, wherein the tunnel packet includes a MPLS identifier such that the second label switched domain may identify the packet and label stack (S bit or protocol identifier per Fig 2)

Referring to **Claim 46**, Casey teaches: In a communication system having a first label switched domain interconnected with a second label switched domain by a non-label switched domain (Fig 2 shows a communication system in which a VPN AREAs are interconnected), a method for forwarding a label switched packet from the first label switched domain to the second label switched domain (Fig 2 shows a method for forwarding a packet from a first VPN Area or domain to a second VPN Area or domain. Figures 2 & 3 shows establishing a tunnel or forwarding a packet through a VPN Area in a communication network where a VPN area can be MPLS or label switched as well as Dedicated IP Net GRE tunnel area or non-label switched using VPN identifiers), the method comprising:

Establishing a tunnel from an egress device to the first label switched domain to an ingress device of the second label switched domain over the non-label switched domain over the non-label switched domain (Fig 2 shows establishing a tunnel across VPN AREAS. Figure 3 shows the VPN AREAS can be MPLS or label switched and Non-MPLS or non-label switched in any order. It would be obvious to one of ordinary skill in the art at the time of the invention that the

VPN Areas of Casey can be sending a packet through a first label switched domain to a non-label switched domain to a label switched domain.);

Encapsulating the label switched packet by the egress device of the first label switched domain (Figs 2 & 3 show encapsulating an MPLS packet by a VBR router in an area or first label switched area)

Forwarding the encapsulated label switched packet by the egress device of the first label switched domain over the tunnel to the ingress device of the second label switched domain (Figs 2 & 3 show forwarding the encapsulated MPLS packet or label switched by a VBR or egress device over a MPLS area)

Decapsulating the encapsulated label switched packet by the ingress device of the second label switched domain (Figs 2 & 3 shows decapsulating the encapsulating a MPLS packet or IP packet to form a tunnel packet across a VPN AREA per Fig 3 or col. 3 lines 26-44 or col. 6 line 21-29)

Forwarding the decapsulated label switched packet by the ingress device of the second label switched domain based upon label switching information in the packet (Figs 2 & 3 shows forwarding an MPLS packet through the tunnel between VPN AREAs), the label switching information including a label switch protocol identifier identifying the packet as a label switched protocol type packet, and at least one label (Figs 2 & 3 shows forwarding an MPLS packet through the tunnel between VPN AREAs)

Casey does not expressly call for: for label switching information in the packet, the label switching information including a label switch protocol identifier identifying the packet as a label switched protocol type packet, and at lease one label but teaches that MPLS packets can be tunneled as well as encapsulated and decapsulated across areas per Fig 3 or col. 3 lines 26-44.

Mauger teaches: for label switching information in the packet, the label switching information including a label switch protocol identifier identifying the packet as a label switched protocol type packet, and at lease one label (S bit or Protocol identifier & label per Fig 3)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the MPLS Label stack with S Bit or Protocol Identifier of Mauger to the MPLS packet of Casey in order to send packets from one MPLS Area to another MPLS Area as shown in Fig 1 & Fig 3 of Casey.

Referring to **Claim 53**, Casey teaches: A communication system having a first label switched domain having an egress device, a second label switched domain having an ingress device and a non-label switched domain which couples the egress device of the first label switched domain to the ingress device of the second label switched domain, wherein the label switched path for forwarding the packet and label stack is established by (Figs 2 & 3 shows a VBR devices or ingress and egress devices in a communication system which forward packets between VPN

Areas by establishing a tunnel for sending MPLS packets or label switched and IP packets or non label switched packets. Figures 2 & 3 shows establishing a tunnel or forwarding a packet through a VPN Area in a communication network where a VPN area can be MPLS or label switched as well as Dedicated IP Net GRE tunnel area or non-label switched using VPN identifiers), the method comprising:

Establishing a tunnel from an egress device to a first label switched domain (Tunnel between VBRs per Fig 2) to an ingress device of the second label switched domain over the non-label switched domain (VBRs are ingress and egress devices per Fig 2);

Forwarding the encapsulated label switched packet by the egress device of the first label switched domain over the tunnel to the ingress device of the second label switched domain (Figs 2 & 3 show forwarding the encapsulated MPLS packet or label switched by a VBR or egress device over a MPLS area)

Decapsulating the encapsulated label switched packet by the ingress device of the second label switched domain (Figs 2 & 3 shows decapsulating the encapsulating a MPLS packet or IP packet to form a tunnel packet across a VPN AREA per Fig 3 or col. 3 lines 26-44 or col. 6 line 21-29

Establishing a tunnel from an egress device to the first label switched domain to an ingress device of the second label switched domain over the non-label switched domain (Fig 2 shows establishing a tunnel across VPN AREAS. Figure 3 shows the VPN AREAS can be MPLS or label switched and Non-MPLS or non-label switched in any order. It would be obvious to one of ordinary skill in the art at the time of the invention that the VPN Areas of Casey can be sending a packet through a first label switched domain to a non-label switched domain to a label switched domain.);)

Encapsulating the packet and label stack by the egress device of the first label switched domain (Figs 2 & 3 shows encapsulating a MPLS packet or label switched to form a tunnel packet across a VPN AREA where a VBR router is an egress device per Fig 3 or col. 3 lines 26-44 or col. 6 line 21-29)

Forwarding the decapsulated packet and label stack by the ingress device of the second label switched domain based upon label switching information in the packet (Figs 2 & 3 shows forwarding a decapsulated packet by the VBR or ingress device between VPN AREAs), the label switching information including a label switch protocol identifier identifying the packet as a label switched protocol type packet, and at least one label (Figs 2 & 3 shows forwarding an MPLS packet through the tunnel between VPN AREAs)

Casey does not expressly call for: for label switching information in the packet, the label switching information including a label switch protocol identifier identifying the packet as a label switched protocol type packet but teaches that MPLS packets can be tunneled as well as encapsulated and decapsulated across areas per Fig 2 & 3 or col. 3 lines 26-44.

Mauger teaches: label switching information in the packet, the label switching information including a label switch protocol identifier identifying the packet as a label switched protocol type packet (S bit or Protocol identifier & label per Fig 3)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the MPLS Label stack with S Bit or Protocol Identifier of Mauger to the MPLS packet of Casey in order to send packets from one MPLS Area to another MPLS Area as shown in Fig 1 & Fig 3 of Casey.

Referring to **Claim 57,** Casey teaches: A communication system (Fig 2) comprising:
A first label switched domain for forwarding a label switched packet (VPN AREA or first domain), the first label switched domain having a plurality of label switching devices including an egress device (VBR or egress device with a VPN AREA per Fig 2) the first label switched domain having a plurality of label switching devices including an egress device (VBR or egress device with a VPN AREA per Fig 2 & 3 where the domains can be MPLS or label switched or IP and non label switched in any order)

A second label switched domain for forwarding the label switched packet (VPN AREA or second domain per Figs 2 & 3)

A non-label switched domain having a plurality of forwarding devices (VPN AREA or domain), the non-label switched domain coupling the egress device of the first label switched domain (The VBR is an egress device coupled to the VPN AREA per Fig 2)

The egress device establishes a tunnel from the first label switched domain to the ingress device of the second label switched domain across the non-label switched domain (The VBR or ingress device establishes a tunnel from the first VPN AREA to the second VPN AREA per Fig 2)

The egress device encapsulated the label switched packet (The VBR or egress device encapsulates the packet for transmission across the VPN AREA per Fig 2)

The egress device forwards the encapsulated label switched packet over the tunnel to the ingress device of the second label switched domain (The VBR or egress device forwards the encapulsulated packet over the tunnel to a VBR or ingress device at the end of the VPN AREA per Fig 2)The encapsulated label switched packet including a protocol identifier for notifying the ingress device that the packet should be decoded according to a label switched protocol ((Figs 2 & 3 shows forwarding an MPLS packet through the tunnel between VPN AREAs)

The ingress device receives the encapsulated label switched packet form the tunnel (The VBR device receives the encapsulated label switched packet from the tunnel per Figure 2)

The ingress device decapsulated the encapsulated label switched packet (The VBR decapsulated the packet received over a VPN AREA per Fig 2)

Forwarding the decapsulated packet and label stack by the ingress device of the second label switched domain based upon label switching information in the packet (Figs 2 & 3 shows forwarding a decapsulated packet by the VBR or ingress device between VPN AREAs), the label switching information including a label switch protocol identifier identifying the packet as a label switched protocol type packet, and at least one label (Figs 2 & 3 shows forwarding an MPLS packet through the tunnel between VPN AREAs)

Casey does not expressly call for: for label switching information in the packet, the label switching information including a label switch protocol identifier identifying the packet as a label switched protocol type packet, and at lease one label but teaches that MPLS packets can be tunneled as well as encapsulated and decapsulated across areas per Fig 3 or col. 3 lines 26-44.

Mauger teaches: encapsulated label switched packet including a protocol identifier for notifying the ingress device that the packet should be decoded according to a label switched protocol (S bit or Protocol identifier & label per Fig 3)

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the MPLS Label stack with S Bit or Protocol Identifier of Mauger to the MPLS packet of Casey in order to send packets from one MPLS Area to another MPLS Area as shown in Fig 1 & Fig 3 of Casey.

In Addition Dependent Claims taught by Casey:

Regarding **Claims 47 & 54**; wherein the first label switched domain is a MPLS domain and the second label switched domain is a MPLS domain (Fig 2 teaches VPN AREAs and Fig 3 teaches that the AREAs can be MPLS or non-MPLS in any order).
Regarding **Claims 48 & 55**; wherein the tunnel is an IP tunnel (col. 3 line 40 & col. 7 lines 13-21).
Regarding **Claims 49 & 56**; wherein the tunnel is a Generic Routing Encapsulation (GRE) tunnel (col. 3 line 40 & col. 7 lines 13-21)

Claim Rejections - 35 USC § 102

6.0   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA

35 U.S.C. 102(e)).

7.0   **Claims 50-53** are rejected under 35 U.S.C. 102(e) as being anticipated by Mauger (U.S.

Patent No.: 6,522,627 B1).

Referring to **Claim 50**, Mauger teaches: A tunneling protocol for interconnecting the first label
switched domain and a second label switched domain (Figs 2 & 3)

Encapsulating means for encapsulating the payload packet from a label switched protocol (Fig
2), the payload packet including at least one label (Fig 2)

Protocol type indicator for identifying the label switched protocol (S bit or protocol type
indicator per Fig 2), the protocol type indicator appended to the encapsulated payload packet for
indicating to a receiving device that the payload includes at least one label (S bit or protocol type
indicator indicates a 1 at the bottom of the stack per Fig 2)

In Addition:
Regarding **Claim 51**, wherein the label switched protocol is MPLS (col. 3 line 49-col. 5 line 40)
Regarding **Claim 52**, wherein the tunnel is a Generic Routing Encapsulation (GRE) tunnel
(L2TP or GRE per Figs 5b & 5C or col. 5 line 55-col. 6 line 9)

Response to Amendment

8.0   Applicant's arguments with respect to claims 1-57 have been considered but are moot in

view of the new ground(s) of rejection.

The examiner respectfully disagrees with the applicant's argument that the new reference,
Mauger, does not suggest or describe the notion of "label stacks" or implementation details.
Mauger teaches "label stacks" and implementation details per Figs 2 & 3.
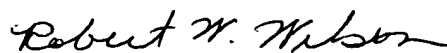
The examiner respectively disagrees with the applicant's argument that the reference, Casey, does not teach or disclose "establishing a tunnel across the non-label switched domain which connects the first label switched domain and the second label switched domain...encapsulating the packet in a tunnel packet". Casey teaches "establishing a tunnel across the non-label switched domain which connects the first label switched domain and the second label switched domain...encapsulating the packet in a tunnel packet" per Figs 1-3.

Conclusion

9.0   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Robert W Wilson whose telephone number is (703) 305-4703.

The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 872-9314 for regular

communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-3900.

Robert W Wilson
Examiner
Art Unit 2661

RWW
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